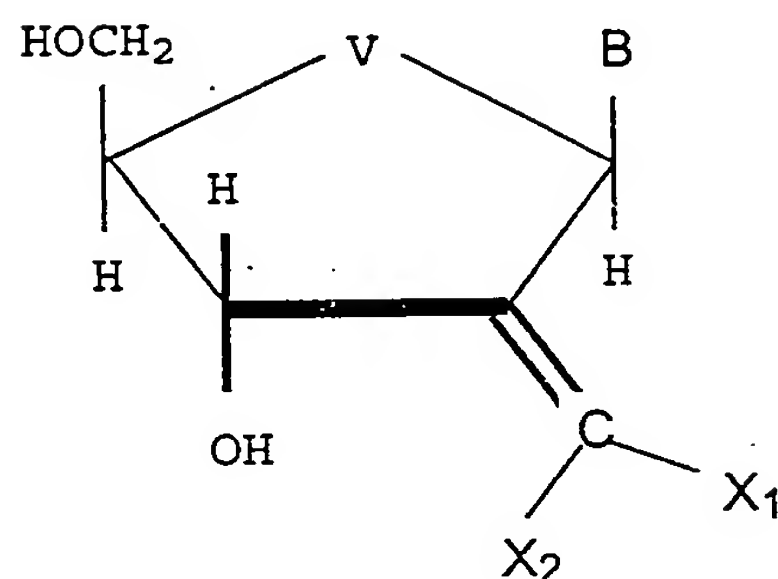


CLAIMS

1. A compound of the formula



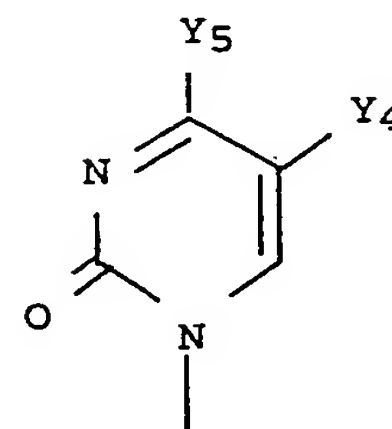
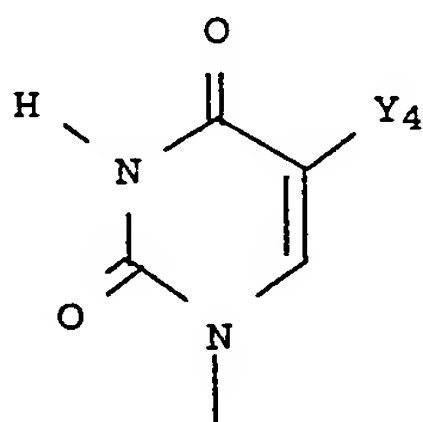
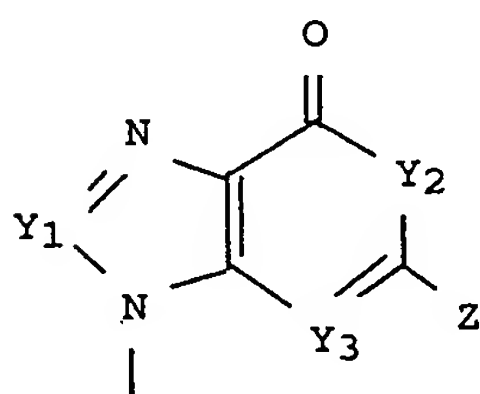
wherein

V is oxy, methylene, or thio,

X₁ and X₂ are each independently hydrogen or halogen,

with the proviso that at least one of X₁ and X₂ is halogen,

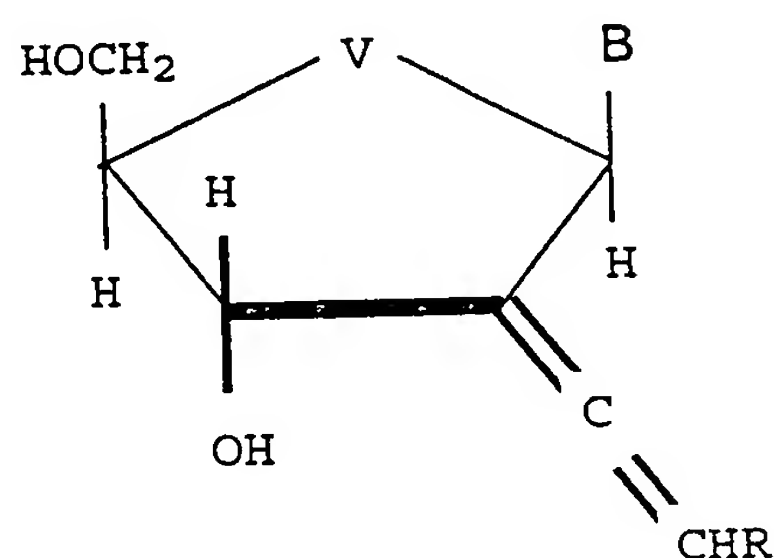
B is a radical of the formula



wherein Y₁ is nitrogen, a CH group, a CCl group, a CBr group or a CNH₂ group; Y₂ and Y₃ are each independently nitrogen or a CH group; Y₄ is hydrogen, C₁-C₄ alkyl, C₁-C₄

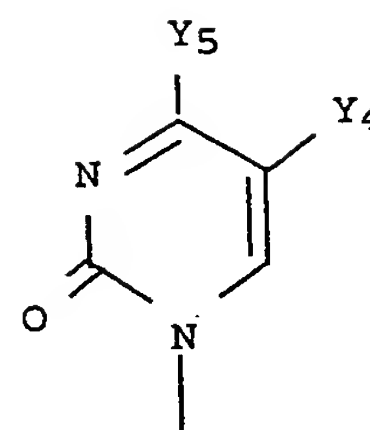
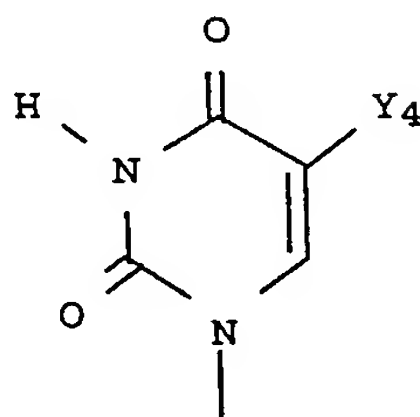
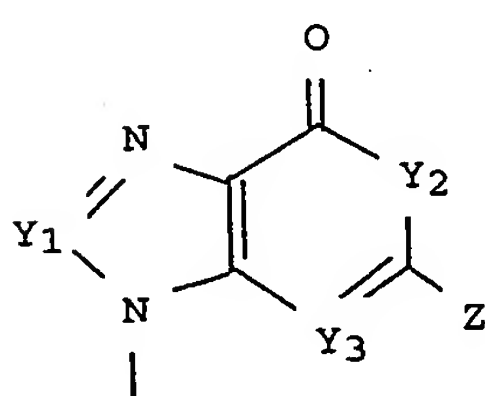
alkoxy or halogen; Y_5 is amino or C_1 - C_4 alkoxy; and Z is hydrogen, halogen, or NH_2 ;
or a pharmaceutically acceptable salt thereof.

2. A compound of the formula



wherein

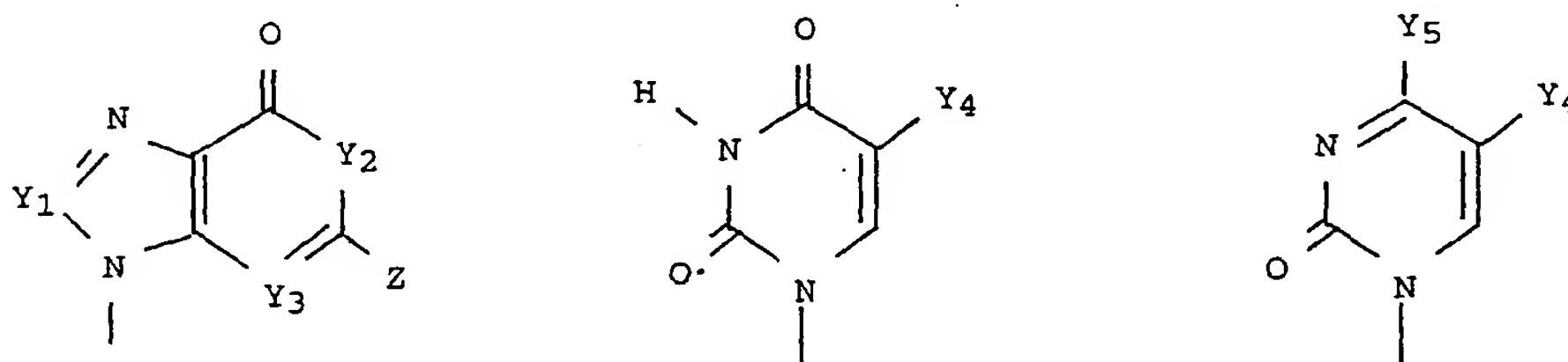
V is oxy, methylene, or thio,
 R is hydrogen or C_1 - C_4 alkyl,
 B is a radical of the formula



wherein Y_1 is nitrogen, a CH group, a CCl group, a CBr group or a CNH_2 group; Y_2 and Y_3 are each independently nitrogen or a CH group; Y_4 is hydrogen, C_1 - C_4 alkyl, C_1 - C_4 alkoxy or halogen; Y_5 is amino or C_1 - C_4 alkoxy; and Z is hydrogen, halogen, or NH_2 ;
or a pharmaceutically acceptable salt thereof.

A diagram of a five-membered ring structure, likely a furanose derivative. The ring is represented by a pentagon with vertices. The top-left vertex is labeled HOCH_2 . The top-right vertex is labeled V . The rightmost vertex is labeled B . The bottom-right vertex is labeled A_1 . The bottom-left vertex is labeled H . The leftmost vertex is labeled H . The bottom edge of the ring is a thick horizontal line. Below the left end of this thick line is a vertical line segment labeled OH . Below the right end of this thick line is a vertical line segment labeled A_2 .

V is oxy, methylene, or thio,
A₁ and A₂ are each independently hydrogen or a -C CR group,
wherein R is hydrogen or C₁-C₄ alkyl, with the proviso that
where A₁ is hydrogen A₂ is a -C CR group, and where A₁ is a
-C CR group A₂ is hydrogen,
B is a radical of the formula



4. A compound of Claim 1 wherein X_1 is fluoro and X_2 is hydrogen.

5. A compound of Claim 1 wherein X_1 is hydrogen and X_2 is fluoro.
6. A compound of Claim 2 or 3 wherein R is hydrogen.
7. A compound of Claim 1, 2 or 3 wherein V is oxy.
8. A compound of Claim 1, 2 or 3 wherein Z is hydrogen.
9. A compound of Claim 1, 2 or 3 wherein Y_1 is a CH group.
10. A compound of Claim 1, 2 or 3 wherein Y_2 is nitrogen.
11. A compound of Claim 1, 2 or 3 wherein Y_3 is nitrogen.
12. A compound of Claim 1, 2 or 3 wherein Z is hydrogen.
13. A compound of Claim 1, 2 or 3 wherein Y_2 is a CH group.
14. A method of treating a patient afflicted with a neoplastic disease state comprising the administration thereto of a therapeutically effective antineoplastic amount of a compound of Claim 1, 2 or 3.
15. A method of treating a patient afflicted with a viral infection comprising the administration thereto of a therapeutically effective antiviral amount of a compound of Claim 1, 2 or 3.
16. A method of controlling the growth of a neoplasm in a patient afflicted with a neoplastic disease state comprising administration thereto of a therapeutically effective antineoplastic amount of a compound of Claim 1, 2 or 3.

17. A method of controlling a viral infection in a patient afflicted therewith comprising administration thereto of a therapeutically effective antiviral amount of a compound of Claim 1, 2 or 3.

18. A pharmaceutical composition comprising a therapeutically effective amount of a compound of Claim 1, 2 or 3 in admixture or otherwise in association with one or more pharmaceutically acceptable carriers or excipients.

19. A compound of Claim 1 wherein the compound is 2'-deoxy-2'-difluoromethylidene-cytidine.

20. The compound of Claim 1 wherein the compound is 2'-deoxy-2'-difluoromethylidene-uridine.

21. The compound of Claim 1 wherein the compound is 2'-deoxy-2'-difluoromethylidene-guanosine.

22. A compound of Claim 1 wherein the compound is (E)-2'-deoxy-2'-fluoromethylidene-cytidine.

23. A compound of Claim 1 wherein the compound is (Z)-2'-deoxy-2'-fluoromethylidene-cytidine.

24. A compound of Claim 1 wherein the compound is (Z) or (E)-2'-deoxy-2'-fluoromethylidene-uridine.

25. A compound of Claim 1 wherein the compound is (Z) or (E)-2'-deoxy-2'-fluoromethylidene-guanosine.

26. The compound of Claim 2 wherein the compound is 2'-deoxy-2'-ethenylidene-cytidine.

27. The compound of Claim 2 wherein the compound is 2'-deoxy-2'-ethenylidene-uridine.

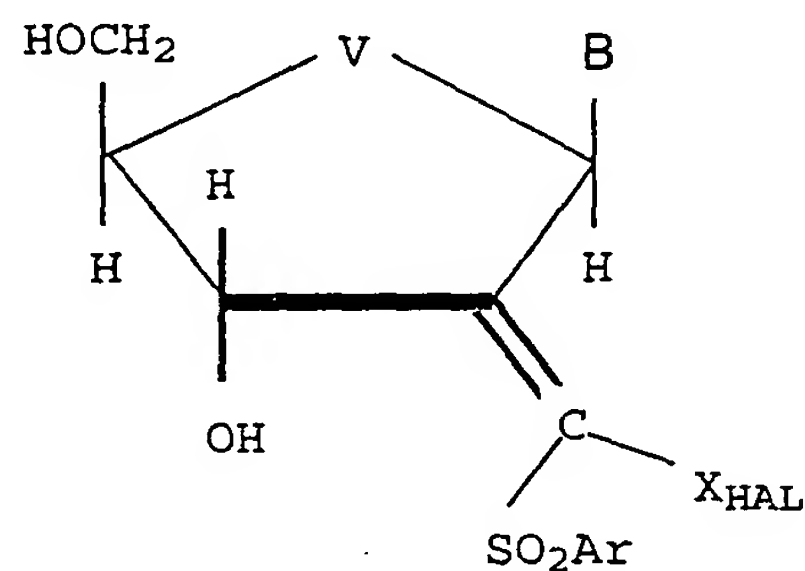
28. A compound of Claim 2 wherein the compound is 2'-deoxy-2'-ethenylidene-guanosine.

29. A compound of Claim 3 wherein the compound is 2'-deoxy-2' (R or S)-ethynyl-cytidine.

30. A compound of Claim 3 wherein the compound is 2'-deoxy-2' (R or S)-ethynyl-uridine.

31. A compound of Claim 3 wherein the compound is 2'-deoxy-2' (R or S)-ethynyl-guanosine.

32. A compound of the formula



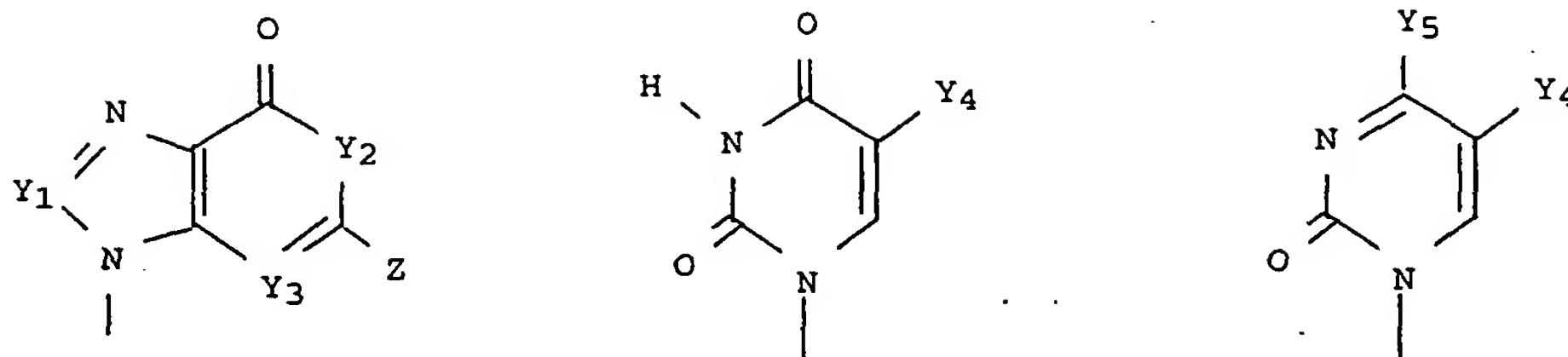
wherein

V is oxy, methylene, or thio,

X_{HAL} is halogen,

Ar is a C₆-C₁₂ aryl group,

B is a radical of the formula



wherein Y_1 is nitrogen, a CH group, a CCl group, a CBr group or a CNH_2 group; Y_2 and Y_3 are each independently nitrogen or a CH group; Y_4 is hydrogen, C_1 - C_4 alkyl, C_1 - C_4 alkoxy or halogen; Y_5 is amino or C_1 - C_4 alkoxy; and Z is hydrogen, halogen, or NH_2 .

33. A compound of Claim 32 wherein Ar is phenyl.

34. A compound of Claim 33 wherein X_{HAL} is fluorine.

35. A composition comprising a compound of Claim 1, 2, 3, or 32 in admixture or otherwise in association with an inert carrier.